

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Alfred E. KELLER  
S SERIAL NO.: 09/625,710  
S FILED: July 25, 2000  
S FOR: Process for Producing Syngas  
In A Short Contact Time  
Reactor Using Catalytic Partial  
Oxidation of Hydrogen Sulfide  
Hydrogen Sulfide  
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EXAMINER: Douglas W.  
FAC  
GR  
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**EXAMINER:** Douglas W. Rudnick

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**RESPONSE TO FINAL OFFICE ACTION DATED JULY 31, 2002**

Atty Dkt. No.: 1856-00301 (98/003)

Date: September 11, 2002

Commissioner for Patents  
Washington, DC 20231

Sir

Applicant acknowledges receipt of the Final Office Action dated July 31, 2002 in the above-identified matter. In response, Applicant requests entry of the following amendments and consideration of the remarks that follow.

## **AMENDMENTS**

**In the Claims:**

Please cancel claims 14 and 24.

Please amend claims 8, 15, 17 and 23 to read, respectively, as follows:

8. (Twice Amended) A system for the partial oxidation of light hydrocarbons and the partial oxidation of H<sub>2</sub>S, comprising a hydrocarbon injection line, an H<sub>2</sub>S injection line in communication with said hydrocarbon injection line, an oxygen injection line in communication with said hydrocarbon injection line, a reaction zone receiving gases from said hydrocarbon, H<sub>2</sub>S and oxygen injection lines and including a catalyst suitable for catalyzing the partial oxidation of said hydrocarbon and the partial oxidation of H<sub>2</sub>S to form a product comprising CO, H<sub>2</sub>, elemental sulfur and H<sub>2</sub>O, and, downstream from said reaction zone, at least one cooling zone including a sulfur condenser for removing elemental sulfur from said product.